

Notice of Allowability

Application No.

09/822,447

Examiner

X. L. Bautista

Applicant(s)

THOMAS ET AL.

Art Unit

2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 5/2/06.
2. ☒ The allowed claim(s) is/are 1-4,6-14,16-18 and 23-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

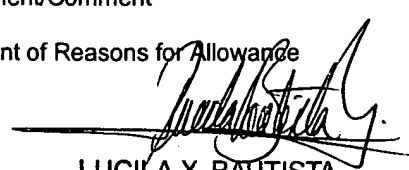
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


LUCILA X. BAUTISTA
PRIMARY EXAMINER

DETAILED ACTION

Reasons for Allowance

1. Claims 1-4, 6-14, 16-18 and 23-32 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Independent claims 1, 11, 23 and 30-32 have been carefully considered. Prior art of record fails to teach the combination of claimed elements including a system and method for making segments of a video and marking a frame; the system identifies characteristic features of the marked frame and records this information; a bookmark signal is sent after marking the frame and then a segment of the video is defined by identifying a segment starting point boundary and a segment endpoint boundary; the start and end point boundaries of the segment are identified by analyzing all frames preceding and succeeding the marked frame, and are based on detecting changes of information in the audio, visual, and transcript portion of the video; the changes are determined with respect to the frame recorded information in the frames prior and subsequent to the marked frame.

Chiu et al (US 6,452,615) discloses a method that enables users to capture stills from media streams, to make annotations and reference events of interest for later playback.

Milewski et al (US 6,289,346) discloses a bookmarking system that enables users to bookmark a stored version of a program for future reference; the system

processes the video streams in frames subsequent to a selected frame and determines a starting point by detecting fade-outs.

Fu et al (US 6,882,793) discloses a system for segmenting video content and generating scene indexes for the video data; the system has a scene detection module for retrieving an image frame and detecting color differences between a current image and the previous image until it determines a scene break and then records a frame identifier associated with the previous frame, which is determined the end of a scene, and the next frame being determined as the start of the next scene.

Sull et al (US 2003/0177503) discloses a method for processing video signals and techniques for video indexing and browsing live TV broadcast programs; the video indexing is based on the user's interactive cooperation to generate summaries of highlight events; the users are enabled to mark the time positions to highlight video segments so that the marked position can be revisited later for more detailed indexing; the system groups highlights into a predefined semantic hierarchy and it has an interface that enables users to select a frame, and in response to that selection, the interface displays the frames before and after the selected frame in an "adjacent frames window" to allow the user to find frame discontinuities.

Covell et al (US 6,721,361) discloses a system and method for detecting a scene transition in a video by determining if a gradual transition, having a length,

is detected in the video data that ends with a current frame based on the current frame and previous frames in the video data; the system compares the gradual transition to a synthetically produced gradual transition having the same length and generated from starting and ending frames associated with the detected gradual transition and marking the detected gradual transition only if it is similar to the synthetically produced gradual transition.

Chen et al (US 2002/0028026) discloses a system and method for generating photographs from a video; the system enables users to index the photographs of a video album according to different types of criteria, and the user is also enabled to enter text annotations; the system automatically detects scene cuts in a video to create a set of thumbnails and allows the user to select entry points into the video; the user is enabled to select a thumbnail of interest to cause the video to begin playing on the display starting at the point in the video at which the thumbnail appears; the system has a scene change estimator that compares successive frames of the video to one another to determine when a transformation of a scene in the video frame exceeds a threshold and then it segments the sequence of frames in the video into one or more subsequences of video frames, each exhibiting a scene transformation that is less than a predetermined threshold.

Fujita et al (US 6,321,024) discloses a method of detecting change points in motion picture images designated by a user; when the user designates a frame, the

system detects a change point in a video cut containing the designated frame and then displays the frame image immediately before this change point and the playing operation is paused to enable the user to edit the video image.

Dimitrova et al (US 6,754,389) discloses a system and method for video categorization and retrieval; the system classifies a sequence of image frames based on object trajectories; the objects are tracked through the sequence of image frames and the object can be any type of object that facilitates an identification of the class to which the sequence of image frames belongs. The system has a processor that identifies distinct sequences of a video stream for classification; the system uses cut detection to identify physical segments or shots within the stream; the physical segmentation facilitates the processing of a video stream because logical segments begin and end on physical segment boundaries.

Nagasaka et al (US 6,400,890) discloses a system and method for retrieving video images on the air or video images in a database and for enabling self-organization of video to be classified and arranged on the basis of the identity of partial images of video. The system compares the feature of a target image to be retrieved and the feature of a sample image to be prepared for query without performing keyword-assigning operation for image retrieval and for detecting the same segment with the frame accuracy. The system groups a plurality of scenes, which are detected to be the same; once the system decides that segments are

equivalent to each other the scenes are associated to each other and stored.

Chiu, Milewski, Fu, Sull, Covell, Chen, Fujita, Dimitrova and Nagasaka fail to teach or suggest determining the starting point and endpoint of the segment of the video based on detecting changes of information in the audio, visual and transcript portion of the video with respect to the frame recorded information in frames prior to and subsequent to the selected frame.

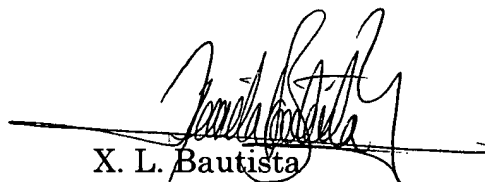
Conclusion

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to X. L. Bautista whose telephone number is (571) 272-4132. The examiner can normally be reached on Monday-Thursday 8:00AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



X. L. Bautista
Primary Examiner
Art Unit 2179

xlb
July 19, 2006